

Brent Jones Sorted By Project

702102 - CeNCOOS Implementation

901009 - CANON

- Preparing SIPPER drawing package for outside machine shop quotes (Week 4)
- Received Wire Walker. Going through unpacking checklist (Week 5)
- Procuring SIM card for WW modem. (Week 6)
- Working out SIM card issues with new Wire Walker. Planning deployment mooring for C1 (Week 7)
- Continued diagnosis of Wire Walker GSM cell modem issues (Week 8)
- Designing WW C1 mooring (Week 8)
- Diagnosed bad GSM modem in RBR cervello. Sending back to Canada on RMA (Week 9)
- Extracting realistic current profiles at C1 to input in mooring simulation. Looks like we might be able to get away with a 400# anchor. This means we can use the Paragon for ops! (Week 9)
- Building Wire Walker mooring. Sourced ground tackle and am getting rope shots spliced (Week 13)
- Ballasted Wire Walker in test tank (Week 13)
- Testing RBR instrumentation on Wire Walker (Week 13)
- Prepping Wire Walker mooring (Week 14)
- Prepping RBR instrumentation on WW mooring (Week 14)
- Deployed Wire Walker system. Topside telemetry system failed after 5 days due to a leak. Also troubleshooting data that was returned to shore. Multiple trips to WW buoy for diagnostics and checks (Week 15)
- Deployed and recovered multiple LRAUV's in lead up CANON testing and for CANON (Week 15)
- Continued support of all assets deployed for CANON/ECOHAB (Week 16)
- Deployed two more Wire Walkers for SIO (Week 16)
- Multiple Paragon trips for deployments/recoverys/maintenance (Week 16)
- Processing Wire Walker data. Requesting quotes for stuff we will eventually need (Week 19)
- Budgetting 2022 costs for Wire Walker for the proposal (Week 25)
- Helping with proposals (Week 28)
- Continuing to design brackets for Wire Walker XEOS beacons. (Week 33)
- Installing XEOS rover and apollo-mono on WW. (Week 34)
- Looking into how to plumb the position reports from the rover into various repo's around MBARI (Week 34)
- Prepping Wire Walker with new line and XEOS trackers (Week 36)
- Diagnosing bad hammerhead mooring line connection. (Week 36)
- Deployed Wire Walker next to Power Buoy (Week 36)
- Flying Spray 34 in a box around power buoy (Week 36)
- Recovered WW with bricked RBR CTD (Week 38)
- Fixed RBR CTD and re deployed WW near Power Buoy (Week 38)
- Data processing of WW (Week 38)
- Monitoring Wire Walker deployment. (Week 40)
- Sent RBR Cervello back to Canada for leak diagnosis (Week 40)
- Beginning build of 3ea SIPPERS. Need to modify electronics to run the peristaltic pump (Week 40)
- Prepping CPF for deployment early Nov. Test tank ballasting and diagnosing a Seabird issue (Week 42)
- Monitoring wire walker deployment (Week 42)
- Designed new SIPPER pump pcb board for use with ELMO twitter (Week 43)
- Prepping CPF for sampler deployment next week. A few software changes (+ testing) were needed to perform a full 48 hour dive (Week 43)

- Recovered Wire Walker. Cleaning system and processing data (Week 46)
- Searched for and recovered CPF. Processing data (Week 46)

901112 - Monterey Bay Time Series

- Deployed and am standing watch for Daphne and Pontus. Deployed WG Tiny (Week 6)
- Deployed and flew two LRAUV's. As of this writing Daphne should have onboard SIPPER samples that need processing (Week 7)
- Continued design of WW C1 mooring. (Week 10)
- CANON/ECOHAB data processing (Week 18)
- Continued data processing from Wire Walker deployment (Week 21)
- SIPPER parts received. Inspected. Updating documentation and prepping for build (Week 25)
- Proposals (Week 28)
- Prepped, deployed, and am flying LRAUV Daphne in support of MBTS run (Week 31)
- Recovered Daphne with all SIPPER samples. Had to troubleshoot new software involved in buoyancy depth holding (Week 32)
- Designed Wire Walker XEOS beacon bracket (Week 32)
- Testing new batteries for Wire Walker Cervelo. Murphy's engineering law #1 held true and the batteries were wired with reverse polarity from Manuf. (Week 32)
- Recovered and diagnosed Wire Walker telemetry system. Found leak (Week 39)
- Monitoring and processing data from deployed wire walker (Week 39)
- Prepped, deployed, flew, and recovered Daphne (Week 40)
- Flew Daphne in support of MBTS runs (Week 49)
- Fixing minor code in CPF that allows bad GPS times to propagate to CPU system clock (Week 49)

901112 - The Monterey Bay Time Series

901502 - Passive Acoustic Sensing

- Begin work on a ML detector for isolating echosounder clicks. Spent some time labeling and extracting training sets (Week 2)
- Running Deimos echosounder click detector. Works well. However, pre processing waveforms to images is proving too slow. (Week 4)
- Trying to speed up click conversion to images (Week 5)
- Proposals (Week 28)
- Meetings (Week 29)
- Processing 6 months of odontocete clicks (Week 29)
- Wrote a matched filter for signal processing hydrophone data. Detects DEIMOS echosounder clicks (Week 31)
- Processing massive click archive in search of echosounder clicks using a matched filter. Preliminary results look great (Week 32)
- Designed a match filter based on a known sperm whale click. Going to search the archive for more clicks (Week 33)
- Ran the first Sperm whale click matched filter and successfully found known clicks from oct2016 (Week 34)

901800.98 - Bioacoustic Payload

- Still trying to figure out wiring for moving BA CPU into Spray LRAUV (Week 2)
- Designed bracket for LRAUV BioAcoustics CPU. Did Solidworks thermal analysis (Week 5)
- Water jetted heat sink and delivered to Waluck for testing. Looks like it is marginal but will try in LRAUV anyway (Week 6)
- Designing power diode pcb for use inside LRAUV with payload (Week 9)
- Design and manufacture of CPU backplane/heat sink. Installing in LRAUV Triton (Week 10)

- Design and manufacture of Diode OR power board for internal use in Triton (Week 10)
- Tested payload in test tank. Noise seems acceptable (Week 13)
- Final mounting of gimbal assembly weight and check outs in the tank. Calibrated Absolute orientation sensor (Week 18)
- Calibrated Absolute Orientation Sensor (AOS) and finalized Triton for deployment (Week 19)
- Deployed Triton for initial BioAc test. Flew her for a little of 24 hours. System worked well for the first time in the real world (Week 19)
- Processing AOS data from deployment. Trying to decipher what orientation the gimbal was in. (Week 19)
- Developing plans for the next deployment (Week 19)
- Cleaning up mechanical installation (Week 21)
- Continuing to digest AOS sensor data from initial field trial (Week 21)
- Initial field deployment!!!! (Week 21)
- Modified several LRAUV missions to now run the BioAc (Week 25)
- Continue to optimize gimbal mechanism. Minor mods to allow better swing (Week 25)
- Increased recording rate on Absolute Orientation Sensor to better coincide with onboard LRAUV data recording (Week 25)
- Proposal (Week 28)
- Prepped/deployed/flew Triton with new backing plates on transducers in attempt to reduce noise. Also testing different flight attitudes and speeds. Tested new missions that run the BioAc sensor (Week 28)
- Processing field results from last week. Gimbal still screwed up and noise still present. ARGHGHG (Week 29)
- Testing in the tank and processing results. Doing an in situ calibration of AOS sensor using LRAUV pitch/roll as standard (Week 29)
- Continued analysis of AOS sensor data (Week 31)
- Helped diagnose inrush brownout when pinging. Ordered soft start resistor (Week 38)
- Prepping LRAUV Triton for next deployment. Testing modified gimbal (Week 39)
- Prepped, deployed, flew, and recovered Triton (Week 40)
- Real-time data returns from Triton indicate gimbal mechanism is working better (baby steps!) (Week 40)
- Still experiencing brown-outs of bioac computer. Found a way to keep caps charged while on the surface (Week 40)
- Looking at raw data from last deployment. (Week 42)
- Attempting to process raw SIMRAD proprietary data in python. Prep for LRAUV/AUV SIMRAD data ingestion in situ (Week 43)
- Deployed Triton. Processing data (Week 46)
- Temp tested mechanism in cold room. No temp affect observed (Week 49)
- Re-ballasting gimbal with a better piece of Pb. (Week 49)

901805 - Coastal Biogeochemical Sensing

- Merging older down/up profiling code with latest code so I only have to maintain one. Adding capability to change profiling from down/up to just up over iridium (Week 2)
- Preparing Spray 29 for deployment. Investigating feasibility of using BOG CPF to carry microrider turbulence sensor (Week 4)
- Continued to rebuild and prep sprays 29 & 34 for upcoming deployments (Week 5)
- Prepped, deployed, and am flying Spray 29 (Week 6)
- Diagnosed bad cable on Spray 29 that led to bad readings when immersed. (Week 6)
- Continued Prep on Spray 34 (Week 6)
- Flying Spray 29 (Week 7)
- Prepping Spray 34 (Week 7)
- Flying Spray 29 (Week 8)
- Continued prepping Spray 34 (Week 8)
- Continued flying of Spray 29 in support of Yui's pH experiments (Week 9)
- Flying Spray 29 in support of active experiment (Week 10)

- Completing ballast of Spray34 in anticipation of deployment next week (Week 10)
- Prepped and deployed Spray 34 (Week 13)
- Flying sprays 29 and 34 (Week 13)
- Flying Spray 29 in support of Yui's lab (Week 14)
- Flying Spray 29 in support of CANON (Week 15)
- Prepping Spray 34 for deployment (Week 15)
- Flying Sprays 29 and 34 in support of Yui's work and CANON. (Week 16)
- Flying Spray 29 in support of Yui's experiments (Week 18)
- Prepping Spray 34 for deployment (Week 18)
- Flying Sprays 29 and 34 in support of Yui's experiments (Week 19)
- Flying Spray29 in support of Yui's experiment (Week 21)
- Redesigning flow cell for SBE GDF pH sensor (Week 21)
- Prepped, deployed, and am flying Spray34 in support of Yui's experiments (Week 25)
- Proposal (Week 28)
- Flying Spray 34 in support of Yui's experiment (Week 28)
- Flying spray 34 in support of Yui's experiments (Week 29)
- Flying Spray 34 in support of Yui's experiments (Week 31)
- Flying Spray 34 in support of Yui's experiments (Week 32)
- Continuing to run Spray 34 (Week 33)
- Diagnosing problems with Spray 29 flurometer (Week 33)
- Installed new batteries on Spray29. Removed old batts. Proceeding with normal turnaround procedures (Week 34)
- Flying Spray 34 in support of Yui's experiments until pulling it off and doing work for CANON (Week 36)
- Recovered Spray glider 34 and diagnosed non functioning SBE pump (Week 38)
- Replaced pump and re deployed glider 34 (Week 38)
- Flying glider 34 in support of Yui's experiments (Week 38)
- Flying Spray34 in support of Yui's experiments (Week 39)
- Flying spray 34 in support of Yui's experiments (Week 40)
- Prepping Spray 34 for a battery exchange (Week 43)
- Doing inventory in anticipation of upcoming deployments (Week 46)
- Tearing down Spray34 looking at corrosion damage due to cracked wing (Week 49)
- Modifying MFET design to fit on the Wire Walker (Week 49)

902004 - Planktivore

- Spec'ing batts and cables for Spray integration (Week 42)
- Consulted with Thom M for external cable and battery orders (Week 43)

902101 - LRAUV Technology Development and Fleet Operations

- Participated in LRAUV operator training for Lake Erie ops (Week 31)

DQ2029 - L Michigan

Out of Office

- Wed/Thurs
- Last Friday and ½ day tues
- Vacation all last week
- 2 sick days (definitely not covid)
- 1 day vacation

Overhead

- Picture a scientist (Week 2)
- Meetings (Week 2)
- Helping write a proposal for OTIC NPS collaboration to put a particle sensor hydrophone on Spray (Week 2)
- Took first aid/CPR/BBP training to maintain Paragon Captain status (Week 6)
- Did MBARI yearly safety training (Week 6)
- Engineering meeting (Week 19)
- COVID testing (Week 19)
- Meetings (Week 25)
- EE candidate dinners (Week 46)